

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method executed in a computer based travel-planning-system, comprises:

receiving trip segments;  
determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights; and  
generating itineraries from flights using the constraints; and  
pricing the itineraries.

2. (Original) The method of claim 1 wherein the constraints are on flights.

3. (Original) The method of claim 1 wherein the constraints are on itineraries.

4. (Original) The method of claim 1 wherein the fares are fares between endpoints of trip segments.

5. (Original) The method of claim 1 wherein the fares are fares between points connected by single flights to endpoints of trip segments.

6. (Original) The method of claim 1 wherein generating provides itineraries for a complete trip.

7. (Original) The method of claim 1 wherein generating provides itineraries separately for each trip segment.

8. (Original) The method of claim 1 wherein constraints are based on fare routings.

9. (Original) The method of claim 1 wherein constraints are based on fare carrier.

10. (Original) The method of claim 1 wherein constraints are based on fare global indicator.

11. (Original) The method of claim 1 wherein constraints are based on fare maximum permitted mileage.

12. (Original) The method of claim 1 wherein the constraints are restrictions on individual flights used in itineraries.

13. (Original) The method of claim 1 wherein constraints are constraints on airline and origin and destination triples.

14. (Original) The method of claim 1 wherein constraints are restrictions on flight origin and destination.

15. (Original) The method of claim 1 further comprising:  
choosing constraints based on fare price.

16. (Currently Amended) The method of claim 1 further comprising:  
generating additional itineraries from flights without considering constraints.

17. (Original) The method of claim 16 wherein pricing prices the itineraries from flights by considering constraints and wherein pricing further comprises:

pricing the itineraries generated without considering the constraints; and  
returning the priced itineraries.

18. (Original) The method of claim 1 wherein pricing further comprises:  
restricting pricing of itineraries based on the constraints used to produce the itineraries.

19. (Currently Amended) The method of claim 4 18 wherein restricting pricing of itineraries is based restrictions on the endpoints of fares considered during pricing.

20. (Currently Amended) The method of claim 1 further comprising:  
generating additional itineraries from flights without considering constraints;  
pricing the itineraries from flights without considering constraints and with considering the constraints; and  
returning the priced itineraries.

21. (Currently Amended) A computer program product residing on a computer readable medium for producing itineraries comprises instructions for causing a computer to:  
receive trip segments;  
determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights; ~~and~~  
generate itineraries from flights using the constraints; and  
price the itineraries.

22. (Original) The computer program product of claim 21 wherein the constraints are on flights.

23. (Original) The computer program product of claim 21 wherein the constraints are on itineraries.

24. (Original) The computer program product of claim 21 wherein the fares are fares between endpoints of trip segments.

25. (Original) The computer program product of claim 21 wherein the fares are fares between points connected by single flights to endpoints of trip segments.

26. (Original) The computer program product of claim 21 wherein generating provides itineraries for a complete trip.

27. (Original) The computer program product of claim 21 wherein generating provides itineraries separately for each trip segment.

28. (Original) The computer program product of claim 21 wherein constraints are based on fare routings.

29. (Original) The computer program product of claim 21 wherein constraints are based on fare carrier.

30. (Original) The computer program product of claim 21 wherein constraints are based on fare global indicator.

31. (Original) The computer program product of claim 21 wherein constraints are based on fare maximum permitted mileage.

32. (Original) The computer program product of claim 21 wherein the constraints are restrictions on individual flights used in itineraries.

33. (Original) The computer program product of claim 21 wherein constraints are constraints on airline and origin and destination triples.

34. (Original) The computer program product of claim 21 wherein constraints are restrictions on flight origin and destination.

35. (Original) The computer program product of claim 21 further comprising instructions to:  
choose constraints based on fare price.

36. (Currently Amended) The computer program product of claim 21 further comprising instructions to:  
generate additional itineraries from flights without considering constraints.

37. (Original) The computer program product of claim 21 wherein instructions to price, prices the itineraries from flights by considering constraints and wherein instructions to price further comprises instructions to:  
price the itineraries generated without considering the constraints; and  
return the priced itineraries.

38. (Original) The computer program product of claim 21 wherein instructions to price further comprises instructions to:  
restrict pricing of itineraries based on the constraints used to produce the itineraries.

39. (Currently Amended) The computer program product of claim ~~24~~ 38 wherein instructions to price restricts pricing restrictions on the endpoints of fares considered during pricing.

40. (Currently Amended) The computer program product of claim 21 further comprises instructions to:

- generate additional itineraries from flights without considering constraints;
- price the itineraries from flights without considering constraints and with considering the constraints; and
- return the priced itineraries.

41. (Currently Amended) Apparatus comprising:

- a processor;
- a memory for executing a computer program product; and
- a computer readable medium storing the computer program product for producing itineraries comprises instructions for causing the processor to:

- receive trip segments;
- determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights; and
- generate itineraries from flights using the constraints; and
- price the itineraries.

42. (Original) The apparatus of claim 41 wherein the constraints are on flights.

43. (Original) The apparatus of claim 41 wherein the constraints are on itineraries.

44. (Original) The apparatus of claim 41 wherein the fares are fares between endpoints of trip segments.

45. (Original) The apparatus of claim 41 wherein the fares are fares between points connected by single flights to endpoints of trip segments.

46. (Original) The apparatus of claim 41 wherein constraints are based on fare routings.

47. (Original) The apparatus of claim 41 wherein constraints are based on fare carrier.

48. (Original) The apparatus of claim 41 wherein constraints are based on fare global indicator.

49. (Original) The apparatus of claim 41 wherein constraints are based on fare maximum permitted mileage.

50. (Original) The apparatus of claim 41 wherein constraints are constraints on airline and origin and destination triples.

51. (Original) A computer program product residing on a computer readable medium for producing itineraries comprises instructions for causing a computer to:  
receive trip segments;  
determine geographic and airline constraints derived from fare rules to control the manner in which flights are combined prior to the evaluation of fare rules; and  
generate itineraries by using the constraints.

52. (Original) The computer program product of claim 51 wherein the constraints are on flights.

53. (Original) The computer program product of claim 51 wherein the constraints are on itineraries.

54. (Original) The computer program product of claim 51 wherein constraints are based on fare routings.

55. (Original) The computer program product of claim 51 wherein the constraints are restrictions on individual flights used in itineraries.

56. (Original) The computer program product of claim 51 wherein constraints are constraints on airline and origin and destination triples.

57. (Original) A method for producing itineraries comprises:  
receiving trip segments;  
determining geographic and airline constraints derived from fare rules to control the manner in which flights are combined prior to the evaluation of fare rules; and  
generating itineraries by using the constraints.

58. (Original) The method of claim 57 wherein the constraints are on flights.

59. (Original) The method of claim 57 wherein the constraints are on itineraries.

60. (Original) The method of claim 57 wherein constraints are based on fare routings.

61. (Original) The method of claim 57 wherein the constraints are restrictions on individual flights used in itineraries.

62. (Original) The method of claim 57 wherein constraints are constraints on airline and origin and destination triples.



63. (Currently Amended) A computer program product residing on a computer readable medium for producing itineraries comprises instructions for causing a computer to:

- receive trip segments;
- determine constraints on sequences of flights, between the endpoints of the trip segments the constraints derived from properties of fares that can be used with the flights; and
- generate itineraries constrained by multiple constraints that are derived from a diverse set of fares in order to increase the diversity of generated itineraries; and
- return at least some of the generated itineraries to a user.

64. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple airlines.

65. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple origins.

66. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple destinations.

67. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple origin-destination pairs.

68. (Currently Amended) A method for producing itineraries comprises:

- receiving trip segments;
- determining constraints on sequences of flights, between the endpoints of the trip segments the constraints derived from properties of fares that can be used with the flights; and
- generating itineraries constrained by multiple constraints that are derived from a diverse set of fares in order to increase the diversity of generated itineraries; and
- returning at least some of the generated itineraries to a user.

69. (Original) The method of claim 68 wherein the fares are chosen to include multiple airlines.

70. (Original) The method of claim 68 wherein the fares are chosen to include multiple origins.

71. (Original) The method of claim 68 wherein the fares are chosen to include multiple destinations.

72. (Original) The method of claim 68 wherein the fares are chosen to include multiple origin-destination pairs.

73. (Original) The method of claim 1 where fares are filtered based on properties of the fare rules.

74. (Original) The method of claim 73 where fares fail if aspects of the fare's rules are violated.

75. (Original) The method of claim 74 where the aspects are the fare's effective and discontinue dates.

76. (Original) The method of claim 74 where the aspects are the fare's rules that limit at least one of travel dates and travel times.